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	ASSESSMENT	JA VISTATE OF	25 STE HUMBER 2054 71503
PART 1-SITE INFORMA	HUN AND ASSESSMEN		
II. SITE NAME AND LOCATION		41014	
01 SITE NAME (Legal, common, or descriptive name of alte)	•	ECIFIC LOSSINGIAMENTE EST	ection
Weedstock Do Costus Inc.	555 WI	heeler St.	
OSCHY De Casting INC.			07 COUNTY OF CONG
11 lacaletat	IL 60098	M. Henry	CODE DIST 1/1 1/6
OG COOR MATES LATITUDE LONGITUDE	10-0101	<u> </u>	1777 176
521910. 0882646.	Woodsto	k IL 19c	.)
10 DIRECTIONS TO SITE I Starting from nearest public roads The UT North to North Street in Woods;	tock. Take Non	4 St. West to	Clay St.
Then clay St Anim to 25 street.	CETTER IS EN	econor et .	rost Sticot
and wheeler St.	· · · · · - ₃ · · · · · - · · · · · · · · · · · · ·		
III. RESPONSIBLE PARTIES	· · · · · · · · · · · · · · · · · · ·		
01 OV:NE R: # known)	02 STREET (Business, melling, resid	•	
Allied Information Systems	P.O. Box o	2423 R	
03 CITY ,	04 STATE 05 ZIP CODE	06 TELEPHONE NUMBER	
Morristown	NT 07960	12011455-3441	•
07 OPER ITOR (# known and different from owner)	08 STREET (Bueness, mailing, resid	entral)	
09 CATY	10 STATE 11 ZIP CODE	12 TELEPHONE NUMBER	T
	l	()	
13 TYPE OF OWNERSHIF (Creck one) K A. PRIVATE D B. FEDERAL:	D.C. STATE	DD.COUNTY DE.MI	ANCEDAL
(Agency name)			THE TALL
□ F. OTHER:(Specify)	G. UNKNO	MN	
14 OWNER/OPERATOR NOTIFICATION ON FILE (Community)			
ALA RORA 3001 DATE RECEIVED 1/1/41/82 B. UNCONTROLL	ED WASTE SITE ICEACLA 103 4)	DATE RECEIVED:	AY YEAR C. NONE
IV. CHARACTERIZATION OF POTENTIAL HAZARD			
01 ON SI E INSPECTION BY (Check all that apply)			
ALYES DATE C6/16/53 DE A. EPA DB. EPA	A CONTRACTOR	STATE D. OTHER	CONTRACTOR
, in the contract of the contr		(Specify)	
05/29/86 CONTRACTOR NAME(S):			
02 SITE STATUS (Check one) 03 YEARS OF OPER	1954		
	MEGINNING YEAR ENDING YE	UNKNOWI	N
04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED			
Studge (Texic)			
Schents (Toxic, Flammable, Reactive)			
Inciparic Chamicals/ Trais Personal		EPA 1	Region 5 Records Ctr.
Tacipavic Chemicals (Toxic, Reactive) OS DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION	···-	 -	
<u>.</u>		11101	<u> </u>
Orcumbinator (Population, Invironment)			350447
Surface water (Population, Environment)			
V. PRICIRITY ASSESSMENT		·	
01 PRICE ITY FOR INSPECTION (Check one If high or medium is checked, complete Part 2 - Weste Infor	mation and Part 3 - Description of Hazardo D. NONE	ous Conditions and Incidents)	
\(\mathcal{U}\) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		sction needed, complete current dispos	Mon ferm)
VI. INF DRMATION AVAILABLE FROM			
01 CONTACT 02 OF (Agency/Organz			03 TELEPHONE NUMBER
Free Flore In 11 1	took De locat	/. 7~ a	18157 338-0700
04 PLRI DI RESEONSTRILE POR ASSESSMENT 05 AGENCY	tock De Cast 108 ORGANIZATION	07 TELEPHONE NUMBER	06 DATE
1M +/ 1 , -		12171785-6872	0/102187 MONTH DAY YEAR
EDAFORN 2070-12(1/81) D 4507	175/13	103 0.72	MONTH DAY YEAR
100 B 0 B01			

S.EPA

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT PART 2 - WASTE INFORMATION

1. IDENTIFICATION

01 STATE 02 SITE NUMBER

TLD 005471503

A. C.				PART 2 - WASTE INFORMATION						
II. WASTES	TATES, QUANTITIES, AN	ND CHARACTER								
	STATES (Cherk at that apply)	02 WASTE QUANT	TITY AT SITE	03 WASTE CHARAC	TERISTICS (Check all flui a	Nophy!				
A SOLIO	E SLUARY		of waste quantities in rependent	A TOXIC	E SOLU		VOLATILE			
B POWDE)(C SLUDG		TONS	0	C RADIO	ACTIVE YG FLAM	IMABLE XX REACT	ive			
		CUBIC YARDS	=	UNKNOWN D PERSISTENT XH IGNITABLE			PATIBLE PPLICABLE			
Pamto d	(Specey)	NO OF DRUMS	unknown,				ciondee			
HI. WASTET	TYPE									
CATEGORY	SUBSTANCE N	IAME	01 GROSS AMOUNT	02 UNIT OF MEASUR	E 03 COMMENTS					
84.0	SLUDGE		Untarion	CY	Sludge from	Treatment Plan	+			
₩ ,€	OLY WASTE		L-KNCL-	المات درم						
SKAL	SOLVENTS		NIA	Dr	Waste Part/S	luets 4-5 deur	ns/month			
FIID	PESTICIDES									
OCC	OTHER ORGANIC CI	HEMICALS	T							
i; c	INORGANIC CHEMIC	ALS	UNKNOWN	UNKNOWN	Tuludes FAL	aceum Cyanie				
ACD	ACIDS		O S KAC GO IS	330,00	7.76	13000 094018	<u> </u>			
BAS	BASES		†	 	 					
WES	HEAVY METALS	·	 	 	 -					
IV. HAZARD	OUS SUBSTANCES IS A	apendis for most frequen	tly cited CAS Numbers!			····	***************************************			
O1 CA EGORY	02 SUBSTANCE N		03 CAS NUMBER	04 STORAGE DIS	SPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION			
Sil	Methyl Ethyl Ke	tone	999	Di	·	UNK	LOWN			
S (2)	Acetone		999	Dis		1	NOWN			
	Cravide	· · · · · · · · · · · · · · · · · · ·	499	UNKN		1	بادر سرما			
7. (~de	157-50.8		رہ بی ع		RNOWN			
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	<u> </u>		<u> </u>	L		<u> </u>				
V. FEEDSTO	OCKS See Appendix for CAS Numb	es)		, -						
(ATEGORY	01 FEEDSTOC	K NAME	02 CAS NUMBER	CATEGORY	O1 FEEDST	OCK NAME	02 CAS NUMBER			
FDS	Chromum		7440-47-3	FDS						
FDS	Xylene		1330-20-7	FDS						
FDS	Tolvene		108-86-3	FDS			· 			
FDS			<u> </u>	FDS	<u> </u>		L			
	S OF INFORMATION (Car		state lies, sample analysis	reports)						
I!Liwai	s EPA Lord F	Files								
Thinois	EPA Air Fil	les								
ILLINGIS	EPA Water F	iles								

SEPA

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

\$\mathcal{ILD}\$ 00547/503

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

II. HAZARDOUS CONDITIONS AND INCIDENTS
0 Y A GROUNDWATER CONTAMINATION 02 XOBSERVED (DATE
0.3 POPULATION POTENTIALLY AFFECTED = 12,800 04 NARRATIVE DESCRIPTION AN ENVIRONMENTAL Study of the plant revealed groundwater contamination of the
Shallow aguiter in the area. The contaminants include welatile organics, lead
and chromium.
0 %B SURFACE WATER CONTAMINATION 02 TO OBSERVED (DATE)
There has been no direct spill into Nippersink Creek (tributory of the Fox River) but
on different dates, excursions from their NPDES permit have occurred. These
excusions occurred for water, phonether and cyanide. NEARS Remot to the const
0 X C CONTAMINATION OF AIR 03 POPULATION POTENTIALLY AFFECTED. N/A 04 NARRATIVE DESCRIPTION 05 OF CONTAMINATION OF AIR 06 NARRATIVE DESCRIPTION
IN July 2,1974 a solvent odor was detacted coming from the plant. No complaints
from area residents saying odor doesn't bother them. Also on July 10,1974 Plant was cited for excessive particulate emissions from four uncontrolled
aluminum reverberatory furnaces. Air Permit # 111095 AAF
0 _ D FIRE EXPLOSIVE CONDITIONS 02 _ OBSERVED (DATE) L_ POTENTIAL _ ALLEGED 04 POPULATION POTENTIALLY AFFECTED 04 NARRATIVE DESCRIPTION
01 T E DIRECT CONTACT 02 DISSERVED (DATE) TOTENTIAL CALLEGED 03 POPULATION POTENTIALLY AFFECTED 04 NARRATIVE DESCRIPTION
01 X F CONTAMINATION OF SOIL ALLEGED POTENTIAL ALLEGED
13 AREA POTENTIALLY AFFECTED
Soil analyses show hich levels of heavy metals and certain Volatile Organic
Chemicals. The area that revealed high levels of heavy metals has been
excavated and revegetated. Soil contamination still may exist
01 % G DRINKING WATER CONTAMINATION 2/2,800 02 % OBSERVED (DATE
Two of five Woodstock City wells are located immediately West of the Plant.
The other three wells are located 8 to 10 blocks North-Northeast of the plant.
Contaminants were found in three of the wells but were below standards.
01 TH WORKER EXPOSURE INJURY 02 COBSERVED (DATE) LI POTENTIAL ALLEGED
03 WORKERS POTENTIALLY AFFECTED: 04 NARRATIVE DESCRIPTION
DATE OF THE PROPERTY OF THE PR
01 D POPULATION EXPOSURE/INJURY 02 D OBSERVED (DATE) D POTENTIAL D'ALLEGED 05 POPULATION POTENTIALLY AFFECTED 04 NARRATIVE DESCRIPTION
· · · · · · · · · · · · · · · · · · ·
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POTENTIAL HAZARDOUS WASTE SITE

		TIFICATION
ļ	01 STATE	02 SITE NUMBER
	ILD	00547150

	NARY ASSESSMENT ZARDOUS CONDITIONS AND INCIDENTS	DI STATE 02 TLD 0	SITE NUMBER OSY71503
L HAZARDOUS CONDITIONS AND INCIDENTS (Community			
01 C J DAMAGE TO FLORA 04 NARRATIVE DESCRIPTION	02 C) OBSERVED (DATE:)	□ POTENTIAL	□ ALLEGED
01 C. K. DAMAGE TO FAUNA 04 NARRATIVE DESCRIPTION riscusts nomeral of species	02 D OBSERVED (DATE)	POTENTIAL	() ALLEGED
C* [] L. CONTAMINATION OF FOOD CHAIN C* NARRATIVE DESCRIPTION	02 - OBSERVED (DATE)	D POTENTIAL	D ALLEGED
(): () M. UNSTABLE CONTAINMENT OF WASTES (Soils (Anoth standing legals fleaking drivers) (LE POPULATION POTENTIALLY AFFECTED.	02 OBSERVED (DATE:) 04 NARRATIVE DESCRIPTION	D POTENTIAL	□ ALLEGED
GIT N. DAMAGE TO OFFSITE PROPERTY ON NARRATIVE DESCRIPTION	02 Li OBSERVED (DATE:)	D POTENTIAL	□ ALLEGED
0 CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs 04 NARRATIVE DESCRIPTION	02 DOBSERVED (DATE:)	D POTENTIAL	D ALLEGED
(1 C P ILLEGAL/UNAUTHORIZED DUMPING (4 NARRATIVE DESCRIPTION	02 OBSERVED (DATE:)	☐ POTENTIAL	□ ALLEGED
35 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLE	GED HAZARDS		
4. TOTAL POPULATION POTENTIALLY AFFECTED:	12, 800		
1. SOURCES OF INFORMATION (Cre specific references, # g., state free	sample enelysus, reports)		
TLLING'S EPA LOND Files			
TLINOIS EPA Air Files			
PLLIDE'S EPA Water Files			

Executive Summary

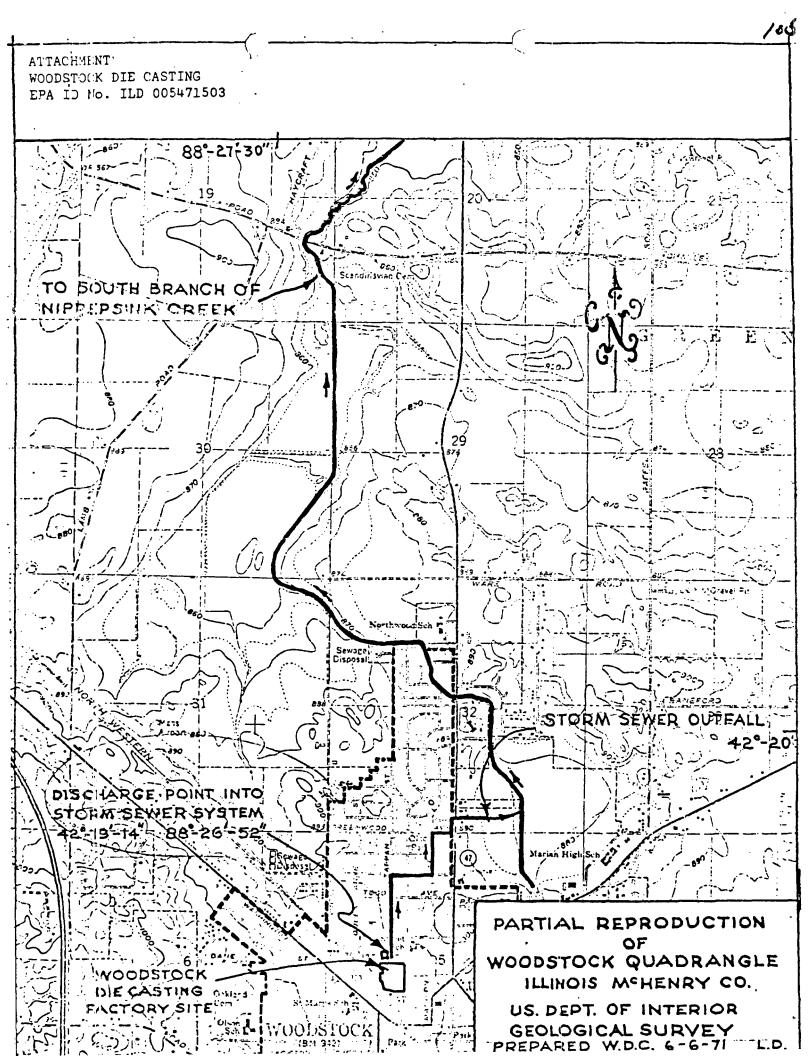
Woodstock Die Casting, Inc. is located in the NW 1/4 of the NE 1/4 of the SW 1/4, Section 5, Township 4 North, Range 7 East in McHenry County, Illinois. The facility is situated between West First Street on the north, Bartlett Street on the south, Clay Street on the east, and the Chicago & Northwestern Railroad on the west. Woodstock Die Casting is involved in the manufacturing, machining and finishing of aluminum and zinc die castings. The finishing process includes polishing, buffing, plating and painting operations. The facility is owned by Woodstock Industries Corporation, who recently acquired the plant from Allied Chemical Corporation.

The facility has an NPDES permit (#IL0033863) covering their whole plant, including: a chlorination system for cyanide, clarifier and thickener, oily waste separator, and a sulfonation system for chromium. The discharge is regulated by the permit and sample analyses are due every month from the discharge. The plant also has an Air permit (#111095AAF) for their waste treatment facility, general machining, painting, die casting and plating operations. The emissions from these operations are regulated by the Illinois Division of Air Pollution Control. Two other regulated units are a storage tank for spent solvents and a drum storage area. Hazardous wastes managed at the site are final waste treatment sludge, filter residues, cyanide destruction residues, spent solvents and tramp oils.

A Summary of Investigation and Workplan was just completed for Woodstock Die Casting by a private firm. Results show soil contamination by heavy metal and certain Volatile Organic Chemicals (VOC's). The area of excessive heavy metal contamination has been excavated and revegetated. Groundwater monitor wells showed high amounts of VOC's, Lead and Chromium in on-site wells. Off-site wells show concentrations of contaminants but are below the maximum concentration level (MCL). Surface water contamination has been recorded in the early 1960's from the plant. Discharges into nearby Nippersink Creek caused the water to turn various colors. These complaints have stopped since being observed and have been remedied.

The potential pathway for soil and groundwater contamination exists. Discharge to surface water is regulated by the NPDES permit so excursions to the discharge are recorded. Due to the fact that Woodstock City public wells are all within ten blocks of the site, a high priority is recommended. Continued analysis of groundwater wells and additional soil sampling is suggested. A groundwater interceptor is proposed by the private firm to collect and treat any contaminated water.

GD:rd1167g/85



Narrative

Facility:

Woodstock Die Casting, a division of Allied Information Systems (former by an Eltra Company), produces and finishes zinc die castings. The operation consists of die casting, machining, and finishing by buffing, polishing, electroplating, and painting. It generates approximately 0.4 MGD of wastewater which is treated on site and discharged to Nippersink Creek under NPDES #IL 0033863.

The wastewater is generated from die casting machine leakage, metal cleaning and activating, plating, cooling tower blowdown, and floor drains. The make up for the system is municipal water. The primary pollutants are synthetic oils, cyanide, chromium, copper, nickel, zinc, phosphorous, alkaline rinses, acid rinses, and cooling system blowdowns. Pollution control is achieved through recycling, pre-treatment, and treatment of the various waste streams. The following are general descriptions of the various systems. Although none of the individual waste streams is monitored for flow, flow estimates are included as reported by the facility representative.

Oily Waste Treatment

The die casting operation does not generate a process wastewater, but normal operations entail leaks of lubrication greases, oils, and noncontact cooling water. All oils are synthetic, water soluble based oils. Also, there is drag out spillage from the quench pit, and washwater from floor cleaning. These wastes combine to produce an actual flow of 10 gpm (design flow is 20 gpm) which is treated in a 55,000 gallon holding tank by aeration augmented with a liquid bacterial solution. The effluent then flows to the general sump and the main treatment plant. The sludge and floating oil accumulated in the tank are removed by a licensed hauler (Frink's Industrial Service) on an "as needed" basis, generally twice per year.

The oily waste tank was originally designed as a separation unit, but because BOD concentrations in the final effluent often exceeded the NPDES daily limits, the unit was modified to an aeration tank in the summer of 1981. This modification was reported to IEPA-Compliance Assurance Section in a WDC letter of August 17, 1981. The aeration is provided by perforated air lines on the floor of the tank. Although no performance data has been collected, the operator feels that the modification has been successful because the final effluent BOD's have been reduced and the surface oil layer has dissipated substantially. The effectiveness of this modification may be due in part to the fact that the glycol based oils are soluble and the detention time created by the present 10 gallon per minute flow rate is approximately 70 hours.

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WOODSTOCK DIE CASTING February 15, 1983 PAGE 3

Chromium Recycle and Treatment

The chromium rinse waters are continuously passed through one of two sets of anionic and cationic exchange resins which produce an effluent suitable for recycling as rinse water (5% TDS). The resins exist in duplicate to allow continuous operation while backwashing. Non-chromium metal ions and chromium ions are tapped in the resins and are separable due to differences in backwash retention times. The clean chromium backwash in the form of dilute chromic acid is passed to an evaporator for contentration and reuse. The other backwash is passed to a sulfonator which reduces hexavalent chromium to trivalent chromium. The trivalent chromium is amenable to precipitation by lime as a trivalent hydroxide. This effluent is passed to the general sump and the main treatment plant for precipitation.

Because chlorine can reoxidize the trivalent chromium to hexavalent chromium, operating personnel cannot apply excess chlorine to the cyanide destruction process. If excess chlorine is used, the mixing of the two effluents in the general sump can cause reoxidation of CR $^{\pm 3}$ to CR $^{\pm 6}$ and the CR $^{\pm 6}$ can pass through the precipitation reaction to the final effluent, resulting in NPDES excursions. Operating personnel monitor the processes to prevent the occurrence of reoxidation.

Cyanide Recycle and Treatment

Cyanide is present in the copper plating bath as a metal complexing agent which helps provide an adequate reservoir of copper ions for plating. Because the solution is continually recharged, the copper cyanide plating bath does not require treatment, but the rinses which follow do require treatment. The rinse water is continuously passed to a surge basin where high pH is maintained to control cyanide fumes. It is then pumped to a quadruple effect evaporator at 30 to 40 gallons per minute which condenses the distillate for reuse as rinse water. The concentrated copper cyanide solution is stored for reuse in the plating baths.

Cyanide is also present in the sodium cyanide bath used to reactivate nickel surfaces prior to copper plating. The rinse water following reactivation is not suitable for recycling due to the presence of nickel from the dissolution of reactivated parts. It is treated by a cyanide destruction process. Cyanide must be destroyed not only because it is toxic, but also because it can prevent effective precipitation of copper and zinc as hydroxides. The cyanide destruction process consists of raising the pH to 11.0 with caustic, and then adding gaseous chlorine in 2 stages to convert the cyanide to nitrogen

WOODSTOCK DIE CASTING February 15, 1983 PAGE 4

and carbon dioxide. This process operates continuously at about 10 gallons per minute. This flow also includes any cyanide spillage which may occur. The treated effluent then passes to the general sump and the main treatment plant.

Acid and Alkali Mix

The acid and alkali rinse waters are mixed in a neutralization tank and and then bassed to the general sump. These rinse waters make up approximately 80% of the total wastewater volume at Woodstock Die Casting.

Other Metals

The removal of the metal ions of copper, zinc, and trivalent chromium is carried out in the main treatment plant by lime precipitation. No pre-treatment is installed strictly for copper or zinc. At a pH of 8.5 in the absence of interfering chemicals, the hydroxides of these metals are highly insoluble and precipitate readily.

Main Treatment Plant

The main treatment plant is a 1.44 MGD DMF chemical precipitation system with tertiary filtration. The treatment units consist of a neutralization tank, a reactivater clarifier, tertiary mixed-media filters, a sludge thickener, and a vacuum filter. The neutralization tank is not in use because the pH of the wastewater in the general sump remains in a generally neutral range, and the pH is adjusted to 8.5 by lime addition prior to clarification. The lime is added to precipitate the metal ions as metal-hydroxide complexes. Alum is added to promote flocculation and to remove phosphorous. The lime-alum slurry enters the circular clarifier at the center, flows down to bottom and filters up through the sludge blanket. The effluent is then pumped to the multi-media filters which function primarily as back-up units to the clarifier. Following filtration, the effluent is discharged to Nippersink Creek via a city-owned storm sewer.

The clarifier sludge is pumped to the sludge thickener and then to the vacuum filter. The sludge cake is shipped to an Agency approved landfill as a special waste under Land Pollution Control Generator Number 1110950001 G.

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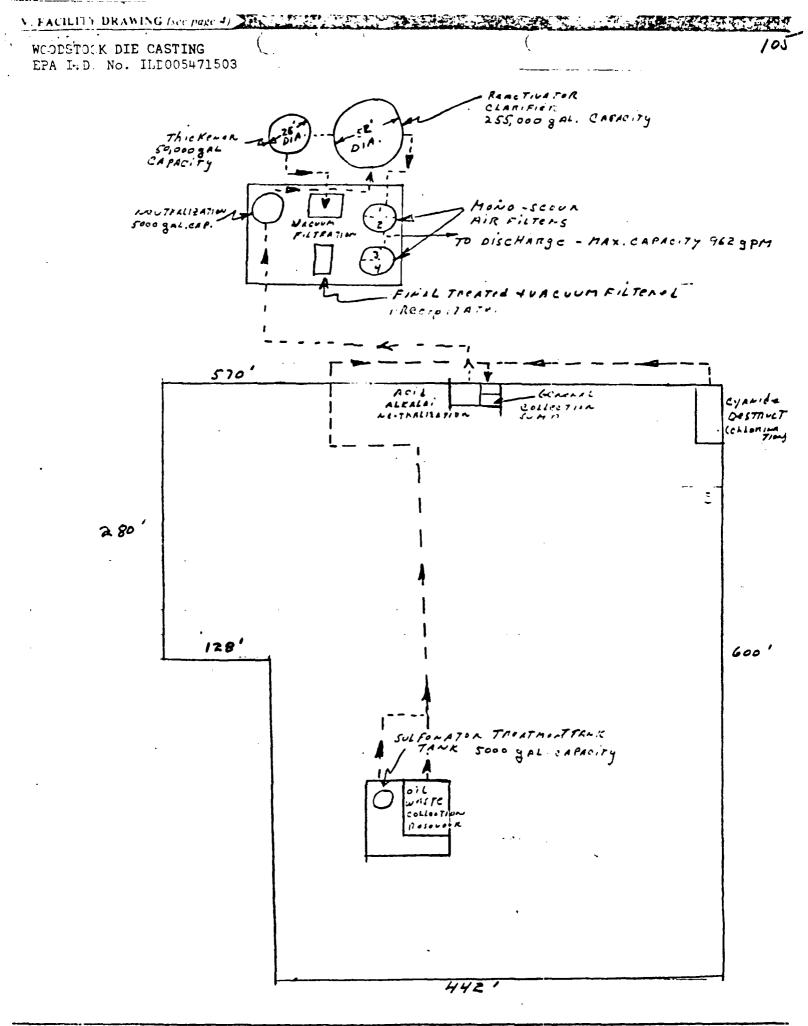
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HAZAHDOUS WASTE PERMIT Consolidated Permits Pro	T APPLICATION FI L D Ø Ø 5 4 7 1 5 6 3 3
FOR OFF CIAL USE ONLY	tion 3005 of RCRA.)
APPRICATION DATE RECEIVED	COMMENTS
27) 10 35	
II. FIRST OR REVISED APPLICATION	and the second s
Place an "X" in the appropriate box in A or B below (mark one box only) to indi- revised application. If this is your first application and you already know your fa EPA I.D. Number in Item I above,	
A. FIRST APPLICATION (place an "X" below and provide the appropriate of X 1. EXISTING FACILITY (See instructions for definition of "existing" for Complete item below.)	facility.
S 5 4 1 2 0 1 (use the boxes to the lc(t)	
B. REVISE D APPLICATION (place an "X" below and complete Item I about 1. FACILITY MAS INTERIM STATUS	Z. FACILITY HAS A RCPA PERMIT
TO PROPERSSES - CODES AND DESIGN CAPACITIES	
A. PROCESS CODE — Enter the code from the list of process codes below that the entering local solution of the space provided escribe line process (including its design capacity) in the space provided on the	ded. If a process will be used that is not included in the list of codes below, then
PROCESS DESIGN CAPACITY — For each code entered in column A enter t AMC INT — Enter the amount.	the capacity of the process.
UNIT OF MEASURE — For each amount entered in column B(1), enter the measure used. Only the units of measure that are listed below should be units.	
PRO- APPROPRIATE UNITS OF	PRO- APPROPRIATE UNITS OF
CESS MEASURE FOR PROCESS CODE DESIGN CAPACITY	PROCESS CODE DESIGN CAPACITY
Storage: CONTAINER (barrel, drum, etc.) \$01 GALLONS OR LITERS	Treatment: Tank Tol Gallons PER Day OR
TANK S02 GALLONS OR LITERS WASTE PILE S03 CUBIC YARDS OR CUBIC METERS	SURFACE IMPOUNDMENT TO2 GALLONS PER DAY LITERS PER DAY
SURFACE IMPOUNDMENT SOA GALLONS OR LITERS DISDOSSI:	INCINERATOR TOS PER HOUR OR METRIC TONS PER HOUR:
INJECTION WELL D79 GALLONS OF LITERS LANDFILL. D19 ACRE-FEET (the volume that	GALLONS PER HOL 9 OR LITERS PER HOUR OTHER (Use for physical, themical TO4 GALLONS PER DAY OR
would cover one acre to a depth of one foot) OR	thermal or biological treatment LITERS PER DAY processes not occurring in tanks,
HECTARE-METER LAND APPLICATION D81 ACRES OR HECTARES OCEAN DISPOSAL D82 GALLONS PER DAY OR	surface impoundments or incinerators. Describe the processes in the space provided; Item III-C.)
SURFACE IMPOUNDMENT DES GALLONS OR LITERS	
UNIT OF MEASURE UNIT OF MEASURE CODE UNIT OF MEASURE	UNIT OF UNIT OF MEASURE CODE UNIT OF MEASURE CODE
GALLONS	HECTARE-METERF
CUBIC YA 7DS	R E HECTARES
EXAMPLE FOR COMPLETING ITEM III (shown in line numbers X-1 and X-2 to other can hold 400 gallons. The facility also has an incinerator that can burn up	below): A facility has two storage tanks, one tank can hold 200 galions and the
T/A C \	to 20 gallons per hour.
C DUP 31	
B. PROCESS DESIGN CAPACITY CESS CESS 2. UNIT OFFICIAL	M. PRO- B. PROCESS DESIGN CAPACITY FOR CESS 2. UNIT OFFICIAL
USE CODE I. AMOUNT SURE USE CONLY	Z (from list) 1. AMOUNT SURE ONLY
JZ above) (enter code)	
X-1 S 0 2 600	5 3 6 1 55 6 6 (U)
X-1 S 0 2 600 E	
X 2 T 0 3 20 E	5 3 6 1 55 6 6 6 U
1 T \$ 1. 57,686866 43566 U	5 3 6 1 55 6 6 6 U
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26	23	<u>_</u>	<u> </u>			1_	70	1	27 .	- 29	27	21	1		1	- 29	CONTINUE ON REVERSE

PAGE 3 ____OF 5

(enter "A", "B", "C", etc. behind the "3" to identify photocopied pages)

* NO SPEN" PLATING BATHS DISPOSED OF; THERE IS POTENTIAL, SO MATERIAL IS REGISTERED.





invironmental rotection Agenc

2200 Churchill Road, Springfield, Illinois 62706

ATTACHMENT EPA ID No. ILD 005471503

217/782-5760

702093 FUNDSTOCK DIE CASING 555 AMEELER SI AUDUSTOCK IL

60044

Dear Special Waste Generator:

Pursuant to HB 453, and the Hazardous Waste criteria developed by the IEPA thereunder, the special waste which you generate and which is permitted for disposal under supplemental permit # 782033 is considered nonhazardous. Therefore, this waste is not subject to the fee of \$0.01/gal (or \$2.02/cubic yard).

However, this waste is still considered "special" and therefore is subject to manifest requirements; as well as, requiring a supplemental permit for disposal at an Illinois Environmental Protection Agency permitted facility.

If you have any further questions or comments, please do not hesitate contacting us.

Very truly yours,

Michael L. Miller

Manager, Hazardous Waste Unit Land Technical Operations Section

Division of Land/Noise Pollution Control

JSM: JFP: b1s/1068B,1

cc: Site Owner/Operator

Grayslake A.R.F.

RCRA INSPECTION REPORT - INTERIM STATUS STANDARDS TREATMENT, STORAGE, AND DISPOSAL FACILITIES Form A General Facility Standards

. Gereral Information	:-
USEPA Number: ILD005471503 TEPA Number: 1110950003	
LDI Facility: YES NO Notified As: 6. TSD Regulated As: 6.	•
(A) - Facility Name: Woodstack Die Casting	_
(B) Street: 555 Wheeler Street	
ic City: Woodstock (D) State: 1609	8
(F Phone: 815 338 - 0700 = (6) County: McHenry	
(H. Operator: Allred Information Systems	
(1) Street: 00. Box 2423R	•
(1) City: Mongestown (K) State: M. T. (L) 210 Code: 0796	Û
(M) Phone: 201 455-3441 (N) County:	
(0) Owner: Same as [+]	
(P) Street:	
(Q) City: (R) State: (S) Zip Code?	
(T) Phone:(U) County:	
Region: N (V) Date of Inspection: $05/29/86$ (W) Time: (From) $9/5$ A.(To) 16	<u> </u>
•	
Type of Inspection: ISS RECORD REVIEW SAMPLING CITIZEN COMPLAINT	
CLOSED WITHDRAWAL OTHER PART B	
F/U/(Date of Initial Inspection)	
(X) Weather Conditions: 275°, Sunny	•
Class Class	
Area Section I II	
(AA) Preparer Information	
Name Name	
Name	
	•
Agency/Title	
TION FOS	
Telephone	
313 345-9780	
RECEIVED	
July Car the	
IEPA-DLPC	

TOTAL Class I's & II's

(Y)	Person(s) Interviewed	Title	Telephone
	Den Woodside Robin Gorrell	Mar of Tech Serv.	815 338-0700
(2)	Inspection Participants	Agency/Title	Telephone
			-

11. Section A: Succe of inspection.

- Interim Status standards for the treatment, storage or disposal of HAZARDOUS WASTES SUBJECT TO 35 III. Adm. Code 725.101. Complete Inspection Form A, Sections B, C, D, E, and G.
- 2. Place an "X" in the box(es) corresponding to the facility's treatment, storage or disposal processes, and generation and/or transportation activity (if any). Complete only the applicable sections and appendixes.

Permit application	process(es) (EPA Form 3510-3) Ins	spection Form A section(s)
301	storage in containers	I
S02	storage in tanks	J
T01	treatment in tanks	J ÷
SC4	storage in surface impoundment	K, F
T02	treatment in surface impoundment	K, F
D83	disposal in surface impoundment	K, F
\$03	storage in waste pile	L
D81	disposal by land application	M, F
D80	disposal in landfill	N, F
тоз	treatment by incineration	0, P
ТЭ4	treatment in devices other than tanks, surf impoundments, or incinerators	face Q
Other Activities		
GENERATOR	APF	PENDIX GN
TRANSPORTER [APF	PENDIX TR

- Indicate any hazardous waste processes, by process code, which have been omitted from Part A of the facility's permit application.
- 4. Indicate any hazardous waste processes (by process code and line number on EPA Form 3510-3 page 1 of 5) which appear to be eligible for exclusion per 35 III. Adm. Code 725.101(c). Provide a brief rationale for the possible exclusion.

III. GENERAL FACILITY STANDARDS: (Part 265 Subpart B)

			Yes	No	NI*	Remark
(A)		the Regional Administrator notified regarding:				
	1.	Receipt of hazardous waste from a foreign source?			MA	no foreign warte
	2.	Facility expansion?			MA	no toreign wate
(B)	Gen	eral Wasta Analysis:				
	1.	Has the owner or operator obtained a detailed chemical and physical analysis of the waste?	$\sqrt{}$			
	2.	Does the owner or operator have a detailed waste analysis plan on file at the facility?				(General Waste Analysis
	3.	Does the waste analysis plan specify procedures for inspection and analysis of each movement of nazardous waste from off-site?			MA	÷ ·
(C)	Seci	urity - Do security measures include (if applicable)	:			
	١.	24-Hour surveillance?				guard Service
	2.	Artificial or natural parrier around facility?	<u></u>	:		fence
	3.	Controlled entry?	<u> </u>			cate
	4.	<pre>Danger sign(s) at entrance?</pre>				
(D)		Owner or Operator Inspections				
	1.	Records of malfunctions?	J/			
	2.	Records of operator error?	1	_		
	2	Records of discharges?				

III. GENERAL FACILITY STANDARDS - Continued

			Yes No	NI*	Remarks
	4,	Inspection schedule?		***	***********
	5.	Safety, emergency equipment?		***	****************
	6.	Security devices?		•••	1
	7.	Operating and structural devices?		***	4
	8.	Inspection log?			
E)		personnel training records clude: (Effective 5/19/81)			
	1.	Job titles?			
	2.	Job descriptions?			4.0000000000000000000000000000000000000
	3.	Description of training?			1.0000000000000000000000000000000000000
	4.	Records of training?			400000000000000000000000000000000000000
	5.	Have facility personnel received required training by 5-19-81?		***	
	6.	Do new personnel receive required training within six months?	<u></u>	***	******************
F)	rec	required are the following special uirements for ignitable, reactive, or ompatible wastes addressed?			
	1.	Special handling?		***	Ignitable warte
	2.	No smoking signs?		***	***************************************
	3.	Separation and protection from ignition sources?			

^{*}Not Inspected

IV. PREPAREDNESS AND PREVENTION: (Part 265 Subpart C)

(A)	Maintenance and Operation of Facility: Is there any evidence of fire, explosion, or release of hazardous waste or hazardous waste constituent?	Yes No NI* Remarks	
(B)	If required, does the facility have the following equipment:		
	l. Internal communications or alarm systems?	1 telephone P.A. syst	EM
	2. Telephone or 2-way radios at the scene of operations?	<u> </u>	
_	3. Portable fire extinguishers,		
	equipment and decontamination equipment?	Lyc extinguishers, S	CBA
	Indicate the volume of water and/or fo	oam available for fire control:	
	-City water w/ 100,1	000 gallon tower, sprinkler sys	tem
(c)	Testing and Maintenance of Emergency Equipment:	-	
	1. Has the owner or operator		
	Has the owner or operator established testing and maintenance procedures for emergency equipment?		
÷	established testing and maintenance procedures		
(D)	established testing and maintenance procedures for emergency equipment? 2. Is emergency equipment maintained in operable	fire dawn pull box	

Is there adequate aisle space for unobstructed movement?	

V. CONTINGENCY PLAN AND EMERGENCY PROCEDURES:

		(Part 265	Subp	art D)	
Α)		the Contingency Plan contain the lowing information:	Yes	No	NI*	Remarks
	1.	The actions facility personnel must take to comply with 5235.51 and 265.56 in response to fires, explosions, or any unplanned release of hazardous waste? (If the owner has a Spill Prevention, Control, and Countermeasures (SPCC) Plan, he needs only to amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this Part (as applicable.)	<u>/</u>	, 		5.
	2.	Arrangements agreed by local police departments, fire departments hospitals, contractors, and State and local emergency response teams to coordinate emergency services pursuant to §265.37?	·			Woodstock Fire and Police Depts, Woodstock Nospital; on-site nurse
	3.	Names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinators?	<u>/</u>	<u></u>		hospital; on-site nurse
	4.	A list of all emergency equipment at the facility which includes the location and physical description of each item on the list and a brief outline of its capabilities?	<u> </u>			
	5.	An evacuation plan for facility personnel where there is a possibilithat evacuation could be necessary? (This plan must describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes?)	ty	_		

V. CONTINGENCY PLAN AND EMERGENCY PROCEDURES - Continued

		Yes No	NI*	Remarks
(B)	Are copies of the Contingency Plan available at site and local emergency organizations?	<u> </u>		Fire Dept
(C)	Emergency Coordinator .			
	1. Is the facility Emergency Coordinator identified?			· · · · · · · · · · · · · · · · · · ·
	2. Is coordinator familiar with all aspects of site operation and emergency procedures?			
	3. Does the Emergency Coordinator have the authority to carry out the Contingency Plan?	<u>/_</u>		
(D)	Emergency Procedures			÷ •
(0)	• •			
	If an emergeray situation has occurred at this facility, has the Emergency Coordinator followed the emergency procedures listed in 265.56?		MA	no emergency waste
	VI. MANIFEST SYSTEM, R (Part 26	ECORDKEEPIN 5 Subpart E		REPORTING .
		Yes No	NI*	Remarks
(A)	Use of Manifest System			
	1. Does the facility follow the procedures listed in §265.71 for processing each manifest?		MA	no off site waste
	2. Are records of past shipments retained for 3 years?		$\left\langle \right\rangle$	
(B)	Does the owner or operator meet requirements regarding manifest discrepancies?			

7

VI. RECORDKEEPING - Continued

(C) Operating Recor	(C)	ĺ
---------------------	-----	---

- 1. Does the owner or operator maintain an operating record as required in 265.73?
- 2. Does the operating record contain the following information:
 - **b. The method(s) and data(s) of each waste's treatment, storage, or disposal as required in Appendix I?
 - c. The location and quantity of each hazardous waste within the facility?
- ****d. A map or diagram of each cell or disposal area showing the location and quantity of each hazardous warte? (This information should be cross-referenced to specific manifest number, if waste was accompanied by a manifest.)
 - e. Records and results of all waste analyses, trial tests, monitoring data, and operator inspections?
 - f. Reports detailing all incidents that required implementation of the Contingency Plan?
 - g. All closure and post closure costs as applicable? (Effective 5-19-81)

/			

<u> </u>	 · -

			·	

- _ no off-site wante
- _ NA not needed to date

- ** See page 33252 of the May 19, 1980, Federal Register.
- *** Only applies to disposal facilities

VII. CLOSURE AND POST CLOSURE (Part 265 Subpart G)

			Yes	No	NI*	Remarks
(A)	C1 0	sure and Post Closure				
	1.	Is the facility closure plan available for inspection by May 19, 1981?	<u>/</u>	<i>'</i>		
	2.	Has this plan been submitted to the Regional Administrator	r henning	· Congression	NA	active whit
	3.	Has closure begun?			NA	\\
	4.	Is closure estimate available by May 19, 1981?	_/		,	
(B)	Pos	1: closure care and use of property				
	a p	the owner or operator supplied ost closure monitoring plan? Tective by May 19, 1981)		-		MA not subject
		VIII. FACT (Part 265, Su				requirement
Faci	lity	Name: Wood stock Die Ca	I MENT O Stine Yes	Dat		respection: $\frac{5 29/56 }{8}$
	1.	Are containers in good condition?	_			
	2.	Are containers compatible with waste in them?	1	, ——		
	3.	Are containers stored closed?				
	4.	Are containers managed to prevent leaks?	<u>/</u>			
	5.	Are containers inspected weekly for leaks and defects?	_			
	6.	Are ignitable & reactive wastes stored at least 15 meters (50 feet) from the facility property line? (Indicate if waste is ignitable or reactive.)	<u>/</u>	_		ignitable

7. Are incompatible wastes stored in separate containers? (If not, the provisions of 40 CFR 265.17(b) Mt all wantes compatible apply.) 8. Are containers of incompatible waste separated or protected from each other by physical barriers or sufficient distance? TANKS Facility Name: Date of Inspection: 1. Are tanks used to store only those wastes which will not cause corrosion. leakage or premature failure of the _ tank? 2. Do uncovered tanks have at least 60 cm (2 feet) of freeboard, or dikes or other containement structures? 3. Do continuous feed systems have a waste-feed cutoff? 4. Are waste analyses done before the tanks are used to store a substantially different waste than before? 5. Are required daily and weekly inspections done? 6. Are reactive & ignitable wastes in tanks protected or rendered nonreactive or non-ignitable? Indicate if waste is ignitable or reactive. (If waste is rendered non-reactive or non-ignitable, see treatment requirements.) 7. Are incompatible wastes stored in separate tanks? (If not, the provisions of 40 CFR 265.17(b) apply.)

Yes No

NI* Remarks

		Yes	No	NI*	Remarks
3.	Has the owner or operator addressed the waste analysis requirements of 265.402?			NA	
4.	Are inspection procedures followed according to 265.403?				
5.	Are the special requirements fulfilled for ignitable or reactive wastes?				
6.	Are incompatible wastes treated? (If yes, 265.17(b) applies.)			1	·
Not	waste regulations in 40 CFR Parts 122, wastewater treatment tanks that receive hazardcus waste or that generate, store is a hazardous waste where such wastewa 402 or 307(b) of the Clean Water Act (3 tanks, transport vehicles, vessels, or hazardous only because they exhibit the or are listed as hazardous wastes in Sc	264 e, st e or aters 33 U. cont e cor ubpar	and 26 ore, a treat are s S.C. 1 ainers rosivi t D of	5 to own nd treat a wastev ubject 1 251 et 3 which n ty chara 40 CFR	ners and operators of (1) t wastewaters that are water treatment sludge which to regulation under Sections seq.) and (2) neutralization neutralize wastes which are acteristic under 40 CFR §261.22, Part 261 only for this reason.
	1. MANIFEST	r REQ	UIREME	NTS	
		Yes	No	NI*	Remarks
(A)	Does the operator have copies of the manifest available for review?	_/	_		
(B)	Do the manifest forms reviewed contain the following information: (If possible, make copies of, or record information from, manifest(s) that do not contain the critical elements) 1. Manifest document number? 2. Name, mailing address, telephone number, and EPA ID Number of Generator	<u>/</u>			

			Yes	No	NI*	Remarks
	3.	Name and EPA ID Number of Transporter(s)?	_/			
	4.	Name, address, and EPA ID Number of Designated permitted facility and alternate facility?				
	5.	The description of the waste(s) (DOT shipping name, DOT hazard class DOT identification number)?	· _/		-	
	6.	The total quantity of waste(s) and the type and number of containers loaded?	<u>/</u>			·
	7.	Required certification?	\angle	/		
	8.	Required signatures?				
(C)		es the owner or operator submit eption reports when needed?			MA	not needed to date
		2. PRE-TRANSP	ORT RE	ગુગામા	MENTS	
(A)	wi:: (Re	waste packaged in accordance h DOT Regulations? equired prior to movement of eardous waste off-site)	✓	_		
(B)	ir cca (Ra	e waste packages marked and labeled accordance with DOT regulations according hazardous waste materials? equired to movement of hazardous ate off-site)	<u>/</u>	/		
(C)		required, are placards available transporters of hazardous waste?			MA	provided by hauter

VI. RECORDKEEPING and REPORTING (Part 262, Subpart D)

			÷	Yes	No	NI*	Remarks
Α)	Exc res	epti ults	ifests, Annual Reports, on Reports, and all test and analyses retained for t three years?	\checkmark	_		
B)	A 1	uaī	cenerator submitted Reports and Exception as required?	<u> </u>	_		Annual Reports
			VII. INTERM (Part 26	ATIONA 2, Sub	L SHIP	PMENTS E)	•
			installation imported rted Hazardous Waste?		<u> </u>	_	·
			(If answered Yes, complete the	follow	ring as	s applic	cable.)
	1.		orting Hazardous waste, a generator:				
	•	a.	Notified the Administrator in writing?		:	MA	- no foreign waite
		b.	Obtained the signature of the foreign consignee confirming delivery of the waste(s) in the foreign country?	:			
		c.	Met the Manifest requirements?			1	
	2.		orting Hazardous Waste, the generator:				-
			Met the manifest requirements?				

. •

IL 532-0171

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

MEMORANDUM

TO: OUSION FILE	DATE: 5/29/86
FROM: RIP	Information only
SUBJECT: Woodstock Die Carting REMARKS	Response requested
REMARKS	
Facility die costs zinc and aluminum Cosmai on include marking, fabrication and painting.	products.
Consider include marking fabrication	, plating,
and painting.	
The following waste streams are genera-	ted on a
The following waite streoms are general	
	= · · · · · · · · · · · · · · · · · · ·
1) Studge (FOOG) trom a NPOFS pound	tel
wastewater treatment plant. Material was	temporarily
delisted in 1981 (see 46 FR 17198) but &	Die Casting
use informed on March 3 1986, the USEPA was going to done the iss a permanent exclusion. The facili	at the
USEPA was going to done the 155	nonce of
wighths from the effective date	of the
timal decision (publication of the don'	ial m the
Federal Register) to come ento C	ompliance
with the Interim Status Provi	sions.
Ation to receipt of the above, SI	udge had
Jean gains to Compstake ARF (#783	(083).
Sludge currently goos to Calumet	C A C I
en tondessy Enterprises of Ohio.	I cala of
conficiency Enterprises of Ohio. concertion is about two cubic. Y dry with sludge leaving the site	ands pay
May with Sludge llowing the Site	within

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ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

MEMORANDUM

	€ 1	10/00
TO:		_ DATE: \5 29/86
FROM:_		Information only
SUBJECT	Γ:	Response requested
	REMARKE con't	
ton	n days of generation.	
2) (Waste point/colverts (Doug Forz Force)	- Aneron
	Cleon up af paint line. Curre is 4-5 drums/month. Materia Wi/Avganic Ind (Hydrite).	nt someration l goes to
	out inganic that city arites.	
A	the time of the inspection.	Woodstock
Die	the time of the inspection Carting appeared in compliance - appropriate RCPA regulation	e with
		<u> </u>
		•.
		· · · · · · · · · · · · · · · · · · ·



DATE:

August 15, 1986

TO:

Division File

FROM:

Dennis Newman

SUBJECT:

1110950003 -- McHenry County

Woodstock/Woodstock Die Cast, Inc.

Superfund/Technical Reports

On August 6, 1986, Jim Janssen, Bob Cotton, and this author met with Allied Corporation of Southfield, Michigan. They requested a meeting to discuss results of a preliminary groundwater study at the above referenced site. Willied Corporation has receively sold their interest in Woodstock Die Cast, Inc., and as post of the sale agreement Allied retained responsibility for environmental problems at the site.

John Beale, Manager of Environmental Services for Allied, described Woodstock Die Cast as an old facility in the center of Woodstock. When Allied decided to sell the facility, they contracted for an Environmental Disclosure Document, which amounts to an Environmental Audit. In conducting this environmental study, they discovered contamination of the shallow aquifer. Contaminants include volatile organics, lead, and chromium. Two of a total of five city wells are located immediately west of the Die Cast plant. The other three city wells are located approximately 8-10 blocks north-northeast of the plant. Each of the city wells have been sampled by Allied's contractor T.A. Gleason Associates, Environmental and Geotechnical Services. Data presented indicated that contaminants were found in wells #1, 5, & o, however, concentrations were less than standards or MCL's.

The source of the contamination is likely to be the 97 underground tanks located on Die Cast property. Most of these tanks are actually open sumps, but they fall within the definition of underground tanks as written in Subpart I of RCRA.

Allied intends to install several more monitoring wells the week of August 11th. They currently have thirty wells in place. They also plan to compile the data collected to date into a single report. At our request, they also plan to begin investigating the integrity of the tanks. On August 8, 1986, I talked to Charlie Zel regarding the underground tanks and what powers, if any, we have to push for an investigation or remediation of that apparent problem. His reply was that we would have to ask USEPA Region V for a 9005 Order. A 9005 Order apparently dicates that the facility must document the integrity of their underground tanks.

The meeting was also attended by three representatives of the City of Woodstock, Dennis Anderson, John Isbell, and John Morris, a consulting engineer. Their concern, of course, was for the drinking water quality of their five wells.

DN:jp:4/156

cc: Jim Janssen

Bob Cotton, Northern Region



Environmental Protection Agency

2200 Churchill Road, Springfield, Illinois 62706

MEMORANDUM

DATE:

August 22, 1980

T0:

Records Unit

FROM:

Yogesh Sheth

SUBJECT:

Woodston: Die Casting -- Woodstock -- NPDES Fermit No.

1L0033863

On August 14, 1980 Judy Carter, John Raevuori, Jerry Rogers and this writer visited the above named facility. The purpose of the visit was to inspect the wastewater treatment facility. Technical Service Director, Michael Graudiello, representing the company, accompanied us on this visit.

The facility operation consists of die casting of zinc and aluminum alloy, and subsequently machining and finishing such as polishing, buffing, electroplating and painting. Wastewater is generated mainly from metal cleaning, die casting operation, phosphate cleaning line, blade line, copper nickel and chrome plating lines, cooling tower blowdown and the demineralization unit. The primary pollutants are oil, copper, nickel, chrome, iron, aluminum, zinc, lead and cyanide.

Municipal water is used for cooling and rinse purposes. Cooling water is recirculated in heat exchanger to condense vapor in the evaporators and to cool hydraulic presses. Cooling water is a total recycle system with 5 gpm intermittent cooling tower blowdown discharge to treatment system. Demireralized water is used in the plating rinse water to prevent aging spot on the plated parts. Demineralized water is also used in the ion exchange columns. Metal cleaning is done by using naphtha 395 solvent and is subsequently discharged to the treatment system. No wastewater is generated from paint line from this facility. Floor drains from the casting operation contains oil and aluminum, and is collected in a tank and is hauled away. The blade line is cleaning of aluminum and zinc alloy blades in alkaline and sulfuric acid solution for further processing. The facility has two automatic plating lines of copper, nickel and chrome used for plating automotive parts.

The wastewater treatment system can be summarized as follows:

1. The cyanide bearing wastewaters resulting from the plating process are diverted from the process system to a large surge basin. Cyanide fumes are controlled in the surge basin due to the high pH of the wastewater. Rinse water is pumped from the surge basin at a controlled rate to the multi-effect evaporator system. The quadruple

effect evaporator is designed to evaporate approximately 30,000 pounds per hour of rinse water at 130°F and 23-26 inches of mercury. The condensed distillate approximately 51 gpm from the evaporator system is returned to the process as make-up rinse water. The concentrated cyanide bearing solution, approximately 1 gpm containing 600 to 700 ppm of cyanide is stored for future use in the process. The entire multi-effect evaporator system is a closed loop recycle recovery system with zero discharge to the waters of the State.

- 2. The contaminated cranide hearing wastewaters, approximately 15 gpm, which would not be acceptable in the recovery loop is directed to a holding tank for cyanide destruction by chlorination. pH is adjusted to 11.0 by addition of caustic soda prior to chlorination. A pH meter and an ORP meter is used to measure the pH of the liquid. After destruction, the batch effluent is discharged to the total systems general collection sump.
- 3. The rinse water from the chrome plating line is passed through an anionic exchanger, then through a cation exchanger and finally through the evaporator prior to reuse as a rinse water. The anionic exchangers, upon periodic regeneration, give up the chrome ions adsorbed from the rinse water. These chrome ions in the form of sodium chromate pass through the cation exchangers where Na is removed to yield chromic acid. This chromic acid solution is then discharged into the holding tank ahead of the evaporator. This material, being too dilute for re-use, is run batchwise into the evaporator where excess water is removed by vacuum disillation. The concentrated chromic acid solution is stored for future use in the process. Distillate is used for make-up rinse water.
- 4. The chrome reduction system is designed to receive chromate bearing acidic streams, regenerant acid waste from cationic exchangers, and backwash water from the demineralization unit. This unit is called a sulfonator, where pH is adjusted to 1.5 to 2.5 by the addition of sulfuric acid and then sulfur dioxide is injected to reduce the hexavalent chrome to the trivalent form. The effluent is then discharged to the total system general collection sump.
- 5. General collection sump is designed to receive the waste from cyanide destruction unit, sulfonator, blade line operation, cooling tower blowdown, floor drains and metal cleaning operation.
- 6. pH neutralization is provided to adjust the pH of the wastewater to 8.5 by addition of lime for metal precipitation prior to clarification.

- 7. The neutralized wastewater stream is pumped to a reactivator clarifier to remove the metal hydroxide precipitates. Alum is added to the system to coagulate the precipitate. After settling, the supernatant is discharged into Nippersink Creek via a storm sewer under NPDES Permit No. IL0033863.
- Settled sludge is drawn from the clarifier and pumped into the sludge thickener and then to a vacuum filter. The sludge contains sulfates of zinc, iron, copper, nickel and chromium and is disposed of in an agency approved landfill.

Summary:

The plant appeared to be a clean operation. The main automatic plating line was inoperable due to the breakdown of the DC power generator. All the units of the treatment works were operating soundly during the visit. Mr. Gaudiello informed us that the tertiary mixed-media filtration unit has been down for the last five weeks and will be reused again in the near future. Presently, the facility is meeting its NPDES permit conditions, except for occasional cyanide excursions.

YS: dw/364H/1-3

co: Lawrence W. Eastep John Rabedomi - Pegion 2, IEPA

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY

INTER - OFFICE CORRESPONDENCE

111095AAF

DATE:

July 26, 1974

MEMO TO: //Tom Casper, Enforcement Services Section, DAPC

FROM:

/ Domingo V. Abella, Region II, DAPC

SUBJECT

Woodstock Die Casting Corporation - Supplemental Information 555 Wheeler Street Woodstock, Illinois 60098

Company Contact: Mr. L. Dirrenberger, Mfg. Engineering Manager

The man for Same of the first the same of the same of

Mr. Herman Engelmann, Plant Engineer

Weather:

Permit Status: No operating permit

Temperature - 75°F Wind - S, 21 MPH Sky - Sunny

An investigation was conducted of the above plant on July 2, 1974, due to a complaint submitted to this office by the McHenry County Department of Health concerning an odor coming from the above facility.

Mr. Dirrenberger was contacted and referred me to Mr. Engelmann. Mr. Engelmann explained their operations and conducted a plant tour. The following observations were made.

The plant was shut down for an annual inventory. Some of the equipment was down for cleaning and maintenance check-up. The aluminum reverberatory furnaces were observed to be in operation.

Mr. Engelmann requested that I look first at their waste water treatment plant because he thought this would be a possible source of odor. In this section, waste water from the plating operation discharges to a collection sump where it is neutralized with lime to a pH of 8.5. The neutralized waste water flows by gravity to a clarifier tank and is treated with alum to precipitate the metal hydroxides. The clear water flows to a sand filter media and discharges to the city sewer system. The sludge is filtered on a drum filter and the filter cakes are collected. The filtrate goes back to the clarifier tank. There was no odor observed in this operation.

In the plating operation, zinc castings are washed in an alkali spray washer which contains a solution of tri sodium meta silicate with a concentration of 2 oz. per gallon. The solution temperature is 170°F. Enissions from this operation are vented to a stack by means of a blower. Rooftop inspection revealed an accumulation of white silicate residue spread on the roof around the washer stack. This equipment was not in operation at the time of the inspection. After washing the castings are rinsed with water and conveyed to the

EVERY INTER-OFFICE LETTER SHOULD HAVE ONLY ONE SUBJECT.
ALL LETTERS TO BE SIGNED . . . NO SALUTATION OR COMPLIMENTARY CLOSING NECESSARY.

Woodstock Die Casting Corp. Page Two

plating tanks for chrome, copper or nickel plating.

In the chrome plating area the castings are dipped in a bath of chromic acid and sulfuric acid. The temperature of the bath is 115°F. Emissions from this operation are controlled by a Heil Fume Scrubber.

The copper plating bath contains a solution of copper cyanide and potassium hydroxice. The bith temperature is 160°F. Emissions from the tank are controlled by a fune scrubber using water as the scrubbant.

Other areas observed were the aluminum and zinc melting operation and the painting operation. There are four uncontrolled aluminum reverberatory furnaces. Two of the furnaces have a holding capacity of 20,000 lbs. each and other two have capacities of 4000 lbs. each. Also there are 12 pot furnaces for zinc melting which are uncontrolled. The process weight rate for each zinc melting furnace is 4000-5000 pounds per hour.

In the painting area, there are 24 paint spray booths equipped with dry filter pads. The facility consumed 8000 gallons of paint per month and 10,000 gallons of solvent per month. The booths are arranged back to back so that emissions from two spray booths are ducted to one common stack.

The following area residents were interviewed after the plant investigation.

Mrs. Paul Hill, 146 First Street, Woodstock:

She said that she smelled lacquer odor emitted from the plant but she is not bothered at all.

Mrs. Martha Bennett, 903 Clay St., Woodstock:

She has no complaint.

Mr. Paul McDonald, MdHenry County Health Dept., Route 47, Woodstock:

He stated that he observed lacquer and solvent odor while he was conducting an inspection of the area.

Mrs. Elmer Benson, 805 Clay Street:

She told me that she smelled solvent odor but it doesn't bother her at all.

On July 10, 1974, another observation was made outside the plant premises and a solvent odor, perhaps coming from the facility, was noted near the residential area.

Woodstock Die Casting Corporation Page Three

Conclusion and Recommendation

The sources of air pollution in this plant are their painting operation, smelting operation, and the alkali spray washer. The attached calculations reveal that the facility is in violation of Rule 205(f) for non-exempt solvent usage and Rule 203(b) for excessive particulate emissions from their aluminum reverberatory furnaces. At this point, it is emphasized that particulate emission calculations from the reverberatory furnaces were made on two bales. Firstly, the 4 reverberatory furnaces were treated as individual emission sources. Secondly, as combined similar emission sources. It appears that the first basis would establish an apparent violation barely over the borderline. However, the combined emission sources emit almost 1.5 times the allowable.

According to our records, an enforcement referral was submitted on March 13, 1973, but never forwarded to the Attorney General. This referral covered excessive particulate emissions on their paint spray booths. A review of the emission calculations made on the old referral shows that the assumed filter efficiency of the dry type spray booth is 90% which is low figure for spray booth using primer paint. Recalculation of the particulate emissions on the spray booths using a higher dry filter efficiency based on tests with five Federal Specification paints published in an article (Product Finishing January, 1970, pp. 74-79) reveal that the spray booths are in compliance with the particulate regulation. Aside from the abole, the facility has no operating permits. It is recommended that the old referral be dropped and a new one is requested covering violations of Rule 203(b) for excessive particulate emissions from their reverberatory furnace; Rule 205(f) for non-exempt solvent usage, and Rule 103(b)(2) for failure to apply for an operating permit. A warning letter will be sent citing the above violation.

DVA:ddp

cc: Region II Files
 Miles A. Zamco, DAPC
 Peter Orlinsky, DAPC

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY

INTER - OFFICE CORRESPONDENCE

DATE:

Decembe ~ 17, 1974

Miles_Zamco, Surveillance Manager, DAPC

-0

Robert Balciunas and Domingo Abella, Region II DAPC

SUBJECT: Noodstock Die Casting Corp.

555 Wheeler St. Woodstock, III.

Contact: Mr. Terman Engelmonn, Plant Engineer

Mr. Michael Gaudiello, Director of Technical Services

Weather: Temp-22°F, Wind - W 8 mph, Sky - Cloudy

Time: 10:30AM - 12:00 Noon

A follow-up inspection was conducted on December 19, 1974.

last July, 1974, the above facility was previously cited for violation of Rule 205 (f) and Rule 203 (b) for excessive particulates emitted from four (4) uncontrolled aluminum reverberatory furnaces. Technical violation of Rule 203 (b) was established on the basis of combined similar emission sources. However, the Permit Section issued an operating permit for the Aluminum Reverberatory furnaces by treating each furnace as individual emission sources, thus putting them in compliance.

Regarding the usage of photochemically reactive material, the facility has 12 twin dry filter spray booths, each ducted to a common stack. Calculations made on previous memo revealed that the total solvents emitted to the atmosphere s 67.0 lbs per hour. The facility has been in violation of Rule 205 (f) since the effectivity of the regulation and up to this time, no effort was demonstrated by them to comply with the regulations.

A telephone conversation was made on the last week of November, with Messa Engelmann and Gaudiello. This violation was discussed with them and they indicated that they would file a variance petition to operate beyond Rule 205 (f). Since that time, nothing was heard from them. This is the reason for the follow-up investigation.

The authors contacted Mr. Engelmann, but was referred to Mr. Gaudiello who discussed the steps they had taken to comply with Rule 205 (f). Mr. Gaudiello told us they are working toward exempt solvents. He showed us the letters from their paint and solvent suppliers. Only two of their suppliers (PPG and Whitaker Corp.) indicated that they are capable of supplying the exempts solvent. However, their main problem is to get approval from Ford and Chrysler Corp. to use these reformulated paints. Mr. Gaudiello conferred with representatives of Ford and Chrysler Corporation. He informed them that they are required by the CEBA, to comply with Rule 205 (f) which necessitate the reformulation of their paints to contain exempt Ford and Chrysler representatives indicated that that they are going to solvents.

EVERY INTER-OFFICE LETTER SHOULD HAVE ONLY ONE SUBJECT OF THE ALL LETTERS TO BE SIGNED . . . NO SALUTATION OR COMPLIMENTARY CLOSING WECESSARYS

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Miles Zamco Woodstock Die Casting Corp. December 17, 1974 Page two

make a study whether the reformulated paints will meet their specifications but there was no response yet from them if the reformulation meets their approval.

Mr. Gaudiello conducted a brief tour of the plant and explained again their operation. He told us that the facility is scheduled to shutdown on the following dates: December 20, 1974, to January 6, 1975; January 27, 1975 to January 30, 1975; February 24, 1975 to February 28, 1975; and March 24, 1975 to March 28, 1975. There were no changes observed in their operation since the last inspection.

At the end of the plant tour, Mr. Engelmann joined us. The authors asked Mr. Engelmann what direction the facility would take to comply with Rule 205 (f). He mentioned that they are going to file a Variance petition and will work toward exempt solvents to comply with the regulation.

Conclusion and Recommendations:

Based on the above, it appears that the facility's compliance with Rule 205 (f) is dependent on Ford and Chrysler Corporation approval of the proposed paint reformulation. PPG and Whitaker Corporation are the two coating and solvent suppliers who can supply the exempt solvents requirement of the facility. Since the facility gave no definite assurance to comply with the regulations, it is recommended that another warning letter will be sent to the facility citing continued violation of Rule 205 (f). An enforcement brochure will be requested if there will be no adequate reponse from the facility.

RB:DA:ft]

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cc: Region II Files



: ONPC-CAS

Woodstock Die Cast Inc. 555 Wheeler Street Woodstock, L F0009 Talephone (815) 338-0700

NPDES Permit No. IL0033863

August 26, 1986

Mr. John Raevuori
Illinois Environmental Protection Agency
Division of Water Pollution Control
Region 2-A
1701 South First Avenue
Maywood, IL 60153

Dear Mr. Raevuori:

Enclosed you will find our Total Toxic Organic (TTO) Monitoring Report for the 2nd quarter of 1986. The identity and concentration of the individual compounds comprising the TTO value may be found in the enclosed laboratory report.

If you have any questions, please contact me.

Sincere

John E. Bvers

President

JEB:rg

enclosures 5

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Woodstock Die Cast Inc. 555 Wheeler Street Woodstock, IL 60098 Telephone (815) 338-0700



8-19-86

TOTAL TOXIC ORGANICS: MONITOPING REPORT

1. Volatile Poliutants: Two grab samples were collected and analyzed for volatile poliutants. The results are as follows:

	Grab A	Grab B
Toluene	.013 mg/l	
Chloroform	.036 mg/1	.062 mg/l
1,1,1 Trichloroethane		.021 mg/l
Methylene Chloride	.088 mg/l	.150 mg/l
Total	.137 mg/l	.233 mg/l

All other volatile pollutants listed in 40 CFR 433.11(e) were below the concentration limit of 0.01 mg/l.

2. Base/Neutral Compounds: One composite sample, dated 6-4-86, was analyzed for base/neutral compounds. All base/neutral compounds listed in 40 CFR 433.11(e) were below the detectable limit.

3. Acid Extractables: One composite sample, dated 6-4-86, was analyzed for acid extractable compounds. All acid extractable compounds listed in 40 CFR 433.11(e) were below the detectable limit.

4. Pesticides/PCBs:
One composite sample, dated 6-4-86, was analyzed for pesticides and PCB compounds. All pesticides and PCB compounds listed in 40 CFR 433.11(e) were below the detectable limit.

DAILY MAXIMUM TOTAL TOXIC ORGANICS: 0.233 mg/l

PERMIT LIMITATION: 1.87 mg/l

Woodstock Die Cast, Inc. Page Two

Lab No: 3-681 July 21, 1986

RES'JLTS:	Concentration in ppm	
VOLATILES	Grab A	Grab B
Acrolein	< 0.10	< 0.10
Acrylonitrile	< 0.10	< 0.10
Benzene	< 0.001	< 0.00%
Toluene	0.013	< 0.001
Ethyl Benzene	< 0.001	< 0.001
Carbon tetrachloride	< 0.001	< 0.001
Chlorobenzene	< 0.001	< 0.001
1,2 Dichloroethane	< 0.001	< 0.001
1,1,1 Trichloroethane	< 0.001	0.021
l, Dichloroethane	< 0.001	< 0.001
1, Dichloroethylene	< 0.001	< 0.001
12 Trichloroethane	< 0.001	< 0.001
1,1,2,2 Tetrachloroethane	< 0.001	< 0.001
Chloroethane	< 0.001	< 0.001
2 Chloroethyl vinyl ether	<.0.001	< 0.001
Chloroform	0.036	0.062
1,2 Dichloropropane	< 0.001	< 0.001
1,3 Dichloropropene	< 0.001	< 0.001
Methylene Chloride	0.088	0.15
Methyl Chloride	< 0.001	< 0.001
Methyl Bromide	< 0.001	< 0.001
Bromoform	< 0.001	< 0.001
D. chlorobromomethane	< 0.001	< 0.001
Trichlorofluoromethane	< 0.001	< 0.001
Cilorodibromomethane	< 0.001	< 0.001
Dichlorodifluoromethane	< 0.001	< 0.001
Tetrachloroethylene	< 0.001	0.007
Vinyl Chloride	< 0.001	< 0.001
1,2 t Dichloroethylene	< 0.001	< 0.001
Bis (chloromethyl) ether	< 0.001	< 0.001
Trichloroethylene	< 0.001	< 0.001

CHICAGO, ILLINOIS 60623

3158 S. KOLIN AVENUE

(312) 254-2406

(57)

Woodstock Die Cast, Inc. Page Three Lab No: 3-681 July 21, 1986

RESULTS:	Concentration in pp
BASE/NEUTRALS	Composite
1,2 Dichlorobenzene	< 0.01
1,3 Dichlorobenzene	< 0.01
1,4 Dichlorobenzene	< 0.61
Hexachloroethane	< 0.01
He cachlorobutadiene	< 0.01
Rekachlorobenzene	< 0.01
1,?,4 Trichlorobenzene	< 0.01
bis (2-Chloroethoxy) methane	< 0.01
Naphthalene	< 0.01
2 Chloronaphthalene	< 0.01
Isophorone	< 0.01
N° trobenzene	< 0.01
2,4 Dinitrotoluene	< 0.01
2,6 Dinitrotoluene	< 0.01
4 Bromophenyl phenyl ether	< 0.01
bis (2-Ethylhexyl) phthalate	< 0.01
Di n octyl phthalate	< 0.01
Dimethylphthalate	< 0.01
Diethylphthalate	< 0.01
D'n butyl phthalate	< 0.01
F'uorene	< 0.01
Fuoranthene	< 0.01
Chrysene	< 0.01
Pirene	< 0.01
Fienanthrene	< 0.01
Anthracene	< 0.01
Benzo (a) anthracene	< 0.01
Benzo (b) fluoranthene	< 0.01
Benzo (k) fluoranthene	< 0.01
Benzo (a) pyrene	< 0.01
Indeno (1,2,3-c,d) pyrene	< 0.01
3158 S. KOLIN AVENUE • CHICAGO, ILLINOIS 60623	• (312) 254-2406

Woodstock Die Cast, Inc. Page Four

Lab No: 3-681 July 21, 1986

REBULTS:	Concentration in ppm
BASE/NEUTRALS (cont'd)	Composite
Dicenzo (a,h) anthracene	< 0.Ci
Benzo (g,h,i) perylene	< 0.01
4 Chlorophenyl phenyl ether	< 0.01
3,31 Dichlorobenzidine	< 0.05
Berzidine	< 0.05
bis (2-chloroethyl) ether	< 0.01
Hexachlorocyclopentadiene	< 0.01
N-Nitrosodiphenylamine	< 0.05
Acenaphthylene	< 0.07
Acenaphthene	< 0.01
Butyl benzyl phthalate	< 0.01
N-Nitrosodimethyl amine	< 0.05
N-Nitrosodi-n-propyl amine	< 0.05
bis (2 Chloroisopropyl) ether	< 0.01



Woodstock Die Cast, Inc. Page Five

Lab No: 3-681 July 21, 1986

RESULTS:	Concentration in ppm		
ACID EXCLACTIBLES	Commosite		
Phenol	< 0.01		
2 Nitrophenol	< 0.01		
4 Nitrophenol	< 0.01		
2,4 Dinitrophenol	< 0.01		
4,6 Dinitro o cresol	< 0.01		
Pentachlorophenol	< 0.05		
p-chloro-m-cresol	< 0.01		
2 Chlorophenol	< 0.01		
2,4 Dichlurophenol	< 0.01		
2,4,6 Trichlorophenol	< 0.01		
2,4 Dimethyl phenol	< 0.01		



Woodstock Die Cast, Inc. Page Six

RESULTS:

Lab No: 3-681 July 21, 1986

Concentration in ppm

PES'TICIDES/PCBs	Composite
a - Endolsulfan	< 0.01
b - Endosulfan	< 0.01
End(sulfan Sulfate	< 0.01
a - BHC	< 0.01
b - BHC	< 0.01
g - BHC	< 0.01
d - BHC	< 0.01
Aldrin	< 0.01
Dieldrin	< 0.01
4,41 DDE	< 0.01
4,41 DDD	< 0.01
4,41 DDT	< 0.01
Endrin	< 0.01
Encrin Aldehyde	< 0.01
Hertachlor	< 0.01

< 0.01

< 0.01

< 0.01

< 0.01

< 0.01

< 0.01

< 0.01

< 0.01

< 0.01

< 0.01

< 0.01



2,3,7,8 Tetrachlorodibenzo dioxin

Hertachlor epoxide

Ch'ordane

Toxaphene

Arochlor 1016

Arochlor 1221

Arochlor 1232

Arochlor 1242

Arochlor 1248

Arochlor 1254

Arochlor 1260

Scientific CONTROL LABORATORIES, INC.

Woodstock Die Cast, Inc. Page Seven Lab No: 3-681 July 21, 1986

Respectfully submitted,

SCIENTIFIC CONTROL LABORATORIES, INC.

SPG:clm

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CERTIFICATION

The above statements and report were subscribed and sworn to before!

me this TWENTY-FIRST day of JULY, 1986.

lotary Public

ENVIRONMENTAL PROTECTION AGENCY FPINISION OF WATER POLLUTION CONTROL WASTE TREATMENT WORKS EFFLUENT SAMPLING FORM 24 HR. KAEVUORI LOW CASTING-DIE WOODSTOCK COMPOSITE 843IN SUB-BASIN (IF HONE ENTER "DIRECT") TRIBUTARY MINOR TRIBUTARY R. FOX 1661.10013 NIPPERSINK. South CE SUB-BASIN OFFICE PERFORMANCE MEASUREMENT SEND COPY OF EDP SETVICES SEND ORIGINAL MAYWOOD OF RESULTS TO: CARD COL. CARD COL. CARD COL. CARD NO. CARD NO. 2 CARD NO. 1 DIEB FIPS COUNTY CODE 03 0-10 _ BASIN CODE PLANT OR STATION NO. LAB ID NO. ID NO. 10 40 SAMPLE TYPE CODE TOPE LITT SAMPLE TYPE CODE PLANKTON INO ML 18-20 ARSENIC 10 . 23 18 - 22 FLUORIDE MON TH Δ BARIUM 21-22 24 . 24 DO HON CHLORIDE 27 - 30 DAY 00 SULFATE AS SO4 CA DMIUM TOTAL BULFUR AS S CHROMIUM IHEX 0'0 TIME OR DAY IA, P.N.I 0 33 42 36 - 36 IDEG. P.I M. B. A . S . (CH ROMIUMITO TAE 47 . 44 ं वे CARBON CHLOROFORM 31-33 # EL D D.O. COPPER 0 EXTRICT 47 - 50 EVANIDE PH I UNITED TURBIDITY 46 . 40 UNITE IRON 51 · 84 TOTAL 0 PHOSPHORUS LTOTAL RESIDUE ON 80 - 83 EVAPORATION 55 · 58 AVG. IRONIDISSOL VEDI BOD. VOLATILE SUSP. <u>0 0</u> (LEAD) 0 SOLIDS 50 - 62 c.o.0 တိ MANGANES COLOR IUNITE EHEHOLI 63 - 63 FECAL COL MERCURY HARDNESS (NO./100ML) IMICROSM/L 44 - 66 00 ALKALINITY (ICKE) (AMMONIA) 49 - 71 40 - 63 TOTAL ACIDITY WITHATE + SELENIUM NITRITE AND 70 - 72 FREE ACIDITY RILVER 00 75 - 77 DRGANIC N 67 - 68 OTHER TESTS REQUIRED RESULTS ZINC TOTAL N 77 70 - 72 T.D.S./E.C. **"**一" ALL RESULTS EXPRESSED AS MG/L EXCEPT WHERE OTHERWISE STATED. TOTAL SUSP. d PHYSICAL OBSERVATIONS & COMMENTS LABNORMAL COLOR, DOOR, FLOATING MATTER, DIL نز_ PLIOS SAMPLE TYPE CODES: A - DOMESTIC WASTE ONLY E MINDUSTRIAL WASTE ONLY I - MIXEL DOMESTIC & INDUSTRIAL WASTE S = STRE IM, LAKE, OR RECEIVING WATER QUALITY FOR LABORATORY, USE ONLY T -MINE DRAINAGE OR WASTE X TOTHER OR TYPE UNKNOWN TIGH BELOW FOR EFFLUENT SAMPLE Q-/6 - 83 10:50 TIME REC'D alunda RANSPORTED 6 SECEIVED BY

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